

WHAT IS CLAIMED IS:

1. A support for a lithographic printing plate obtained by performing graining treatment including electrochemical graining treatment on an aluminum plate, wherein said aluminum plate contains Fe of 0.05 to 0.29 wt%, Si of 0.03 to 0.15 wt%, Cu of 0.020 to 0.050 wt% and Ti of 0.05 wt% or less and the remaining portion thereof is composed of aluminum and unavoidable impurities.

2. The support for a lithographic printing plate according to claim 1, wherein said aluminum plate is such that the plate thickness t (mm) thereof is 0.10 to 0.50 (mm) and the relation between said plate thickness t (mm) and the tensile strength TS (MPa) of said aluminum plate in a rolling direction satisfies the following equation [I].

Equation [1]:

$$-98.6 \times t + 170 \leq TS \text{ (MPa)} \leq -98.6 \times t + 200$$

3. The support for a lithographic printing plate according to claim 1, wherein said aluminum plate is such that for an intermetallic compounds are existent on the surface thereof, an intermetallic compound with a circle equivalent diameter of 1 μm or more is of 6,000 pieces/ mm^2

or less and the rate of an intermetallic compound with a circle equivalent diameter of 1 to 10 μm is 85% or higher.

4. The support for a lithographic printing plate according to claim 2, wherein said aluminum plate is such that for an intermetallic compounds are existent on the surface thereof, an intermetallic compound with a circle equivalent diameter of 1 μm or more is of 6,000 pieces/ mm^2 or less and the rate of an intermetallic compound with a circle equivalent diameter of 1 to 10 μm is 85% or higher.

5. The support for a lithographic printing plate according to claim 1, wherein said aluminum plate is such that for crystal grains located in the area up to 50 μm deep from the surface thereof, the width in a direction perpendicular to a plate rolling direction is an average of 80 μm or less and a maximum of 150 μm or less, and the length of the plate rolling direction is an average of 400 μm or less and a maximum of 500 μm or less.

6. The support for a lithographic printing plate according to claim 2, wherein said aluminum plate is such that for crystal grains located in the area up to 50 μm deep from the surface thereof, the width in a direction

perpendicular to a plate rolling direction is an average of 80 μm or less and a maximum of 150 μm or less, and the length of the plate rolling direction is an average of 400 μm or less and a maximum of 500 μm or less.

7. The support for a lithographic printing plate according to claim 3, wherein said aluminum plate is such that for crystal grains located in the area up to 50 μm deep from the surface thereof, the width in a direction perpendicular to a plate rolling direction is an average of 80 μm or less and a maximum of 150 μm or less, and the length of the plate rolling direction is an average of 400 μm or less and a maximum of 500 μm or less.

8. The support for a lithographic printing plate according to claim 1, wherein Si atom adhesion quantity onto the surface of said aluminum plate is 0.1 to 30 mg/m^2 .

9. The support for a lithographic printing plate according to claim 2, wherein Si atom adhesion quantity onto the surface of said aluminum plate is 0.1 to 30 mg/m^2 .

10. The support for a lithographic printing plate according to claim 3, wherein Si atom adhesion quantity

onto the surface of said aluminum plate is 0.1 to 30 mg/m².

11. The support for a lithographic printing plate according to claim 5, wherein Si atom adhesion quantity onto the surface of said aluminum plate is 0.1 to 30 mg/m².

12. A presensitized plate provided with an image recording layer on the support for a lithographic printing plate according to claim 1.

13. A presensitized plate provided with an image recording layer on the support for a lithographic printing plate according to claim 2.

14. A presensitized plate provided with an image recording layer on the support for a lithographic printing plate according to claim 3.

15. A presensitized plate provided with an image recording layer on the support for a lithographic printing plate according to claim 5.

16. The presensitized plate according to claim 12, which is a presensitized plate for a laser printing plate.

17. A method of treating a presensitized plate, wherein after exposure is performed on the presensitized plate according to claim 12, development is performed with a developer substantially containing no alkali metal silicates and containing saccharides.

18. A method of treating a presensitized plate, wherein after exposure is performed on the presensitized plate according to claim 13, development is performed with a developer substantially containing no alkali metal silicates and containing saccharides.

19. A method of treating a presensitized plate, wherein after exposure is performed on the presensitized plate according to claim 14, development is performed with a developer substantially containing no alkali metal silicates and containing saccharides.

20. A method of treating a presensitized plate, wherein after exposure is performed on the presensitized plate according to claim 15, development is performed with a developer substantially containing no alkali metal silicates and containing saccharides.